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Granville Site Technical Committee
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Via Express Mail

October 4, 2001

EPA Region 5 Records Ctr.



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Mr. Kevin Adler, Remedial Project Manager
U.S. Environmental Protection Agency, Region 5
Office of Superfund, Remedial & Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: Granville Solvents Site Removal Action Quarterly Report – Third Quarter 2001

Dear Mr. Adler:

I have enclosed two copies of the Third Quarterly Report for the Removal Action at the Granville Solvents Site on behalf of the Granville Solvents Site PRP Group. Copies have been sent to the following individuals:

1. Mr. Steve Acree, U.S. EPA
2. Mr. Fred Myers, Ohio EPA
3. Mr. Joe Hickman, Manager, Village of Granville

If you have any questions regarding this report, please contact me at (919) 668-3218.

Regards,

William S. Brewer, Ph.D.
Granville Technical Committee Chair

cc: Ben Pfefferle, Chairman, GSS PRP Group
Granville Technical Committee
G. Myers, Metcalf & Eddy
T. Struttman, Sharp & Associates

**GRANVILLE SOLVENTS SITE
REMOVAL ACTION QUARTERLY REPORT
FOR JULY, AUGUST, and SEPTEMBER 2001**

October 2001

Pursuant to the requirement set forth in the Administrative Order by Consent (AOC, September 7, 1994) between the U.S. EPA and the Granville Solvents Site (GSS) Potentially Responsible Parties (PRP) Group, in Section 2.5 – Reporting, and the letter dated November 14, 1996, from Ms. Diane Spencer (U.S. EPA), this report constitutes the quarterly written progress report concerning actions undertaken pursuant to the AOC.

I. PROGRESS MADE DURING REPORTING PERIOD

Source Area Groundwater Control

The groundwater pumping and treatment system operated 744 hours in July, 736 hours in August, and 720 hours in September, for a total of 2,200 hours (99.6% of the total hours available) during the third quarter of 2001. Since operation of the treatment system began in December 1994, the system has been operating over 98.6% of the available time.

The treatment system processed approximately 10.26 million gallons of water in July, 10.56 million gallons of water in August, and 9.93 million gallons of water in September for a total of 30.75 million gallons of water for the quarter. Since operation began in December 1994, the system has processed more than 800.25 million gallons of water.

During the third quarter of 2001, Metcalf & Eddy collected measurements of air pressure in the air-stripping unit's inlet and exhaust ducts on a monthly basis. These data were used to calculate airflow values. Following acid washing in August, airflow increased from 1,850 cubic feet per minute (cfm) in July to 2,325 cfm. The air flow rate calculated for the month of September was 2,175 cfm.

Metcalf & Eddy performed scheduled monthly maintenance on the treatment system. This maintenance ensures that the system performs efficiently and decreases unscheduled downtime. This maintenance included the replacement of the bag filters, lubrication of the transfer pump and blower motors, and maintenance of the flow meters and level sensors.

Water samples were collected from the system's influent and effluent sampling ports on July 27 and August 22, 2001. Samples were not collected as scheduled September 17 because the laboratory was unable to ship bottles due to the terrorist attack on September 11, 2001. Samples will be collected as soon as sample containers are received from the laboratory, which is anticipated no later than the week of October 8, 2001. The results for samples collected on October 8, 2001 will be submitted in next quarter's report. Analytical results for July and August are presented in Table 1.

TABLE 1

VOCs	Influent July	Effluent July	Influent August	Effluent August	Influent September	Effluent September
1,1,1-trichloroethane	37.8 ug/l	ND	21.6 ug/l	ND	----	----
Cis-1,2-dichloroethene	5.8 ug/l	ND	3.4 ug/l	ND	----	----
Tetrachloroethene	33.2 ug/l	ND	21.3 ug/l	ND	----	----
Trichloroethene	39.9 ug/l	0.49 ug/l	24.4 ug/l	ND	----	----
1,1-dichloroethane	0.7 j ug/l	ND	ND	ND	----	----

Flow meters and totalizers for the treatment system have been operating inconsistently. An alternative method to estimate flow rates has been to compare readings from the flow meters and totalizers.

Extraction well GSS-EW1 was operated at an average flow rate of approximately 130 gallons per minute (gpm) during the third quarter of 2001. The average flow rate from GSS-EW2 was approximately 100 gallons per minute (gpm) during the third quarter of 2001. The total pumping rate averaged 230 gpm for the month of July, 230 gpm for the month of August, and 230 gpm for the month of September. The average flow rate for the system during the quarter was 230 gpm.

The data presented in Table 1 represents influent and effluent concentrations at the GSS, and Metcalf & Eddy has recorded that approximately 30.36 million gallons of water were processed for the third quarter of 2001. Based on these data, approximately 0.41 lb/day in July and 0.25 lb/day in August of total VOCs were discharged to the atmosphere during the reporting period.

Groundwater Monitoring Plan

Groundwater level measurements were collected on July 1, August 22, and September 17, 2001. These data were used to develop potentiometric surface maps.

Source Area Soils

Sharp and Associates, Inc. (SHARP) began implementation of the impacted soils treatment removal action at the site. The warehouse, still building and employee lounge were demolished in July 2001. Demolition debris was sampled and analyzed for disposal purposes. Structural steel and metals were sent to a recycling facility. Above grade demolition debris was disposed of at a construction and demolition (C&D) landfill. At and below grade debris was disposed of at a Subtitle D landfill.

After completion of demolition activities, the site was graded and Air Injection (AI), Air Sparging (AS), and Soil Vapor Extraction (SVE) wells were installed. Drilling activities were completed in July 2001. Due to some thin clay layers, some of the air injection wells had to be installed with screens shorter (less than 5 feet) than those specified in the approved design report. This design modification should not adversely affect the treatment remedy since air injection wells with screens less than 5 feet in length are not in clay where contaminants exceed the risk-based soil treatment goals. The other wells were installed as specified in the design report.

The treatment building components were installed in the temporary enclosure off site concurrently with the demolition and well installation activities. After completion of drilling, the temporary enclosure was moved to the site. Well piping was installed on grade and plumbed to the treatment building components.

The treatment system was tested and started up on September 9, 2001. Air injection and soil vapor extraction components are currently in operation. The air sparging component is scheduled for full operation beginning in October 2001 and will be phased in so air emissions remain de minimis.

Active or Completed Tasks

The following specific tasks were completed during the reporting period:

- Collected water samples on July 27 and August 22, 2001 from the treatment system influent and effluent sampling ports.
- Collected water level measurements on July 18, August 22, and September 17, 2001.
- Collected airflow data on a monthly basis.
- Collected the quarterly suite of samples from the monitoring well network on August 1, 2001.
- Demolished the warehouse, employee lounge, and still building.
- Installed SVE, AS, and AI systems per the approved final design plan.
- Collected soil samples in the impacted area to supplement existing subsurface soils data.

- Started up and began operation of the SVE and AI components of the soil treatment system.
- Collected initial air samples during the system start-up phase.

II. DELIVERABLES (CURRENT PERIOD AND NEXT PERIOD)

Current Period:

<u>Deliverable</u>	<u>Due Date</u>	<u>Delivered</u>
Quarterly Report	October 8, 2001	October 8, 2001

Next Period:

<u>Deliverable</u>	<u>Due Date</u>
Quarterly Report	January 7, 2002
Construction Completion Report	

III. DIFFICULTIES ENCOUNTERED & RESPONSE ACTIONS TAKEN THIS PERIOD

Source Area Groundwater Control

Sample containers were not available from the laboratory for the scheduled influent and effluent sampling on September 17, 2001. Sample containers had been requested from the laboratory and were received no later on October 3, 2001. Sampling will be conducted during the week of October 8, 2001.

Flow meters and totalizers for the treatment system have been operating inconsistently. Efforts have been made to clean and reset components. An alternative method to estimate the flow rates has been used to compare readings from the flow meters and totalizers. The performance of these components will be monitored and actions will be taken.

Source Area Soils

It became apparent during drilling activities that the clay layer was thinner in some locations than originally anticipated. Because of the thinner clay layer some of the air injection wells had to be installed with screens shorter than those specified in the approved design plan.

Eleven of the 16 air injection wells were installed with screen shorter than the specified 5 feet. Analysis of soil samples collected during drilling indicated that in each of these locations the concentration of contaminants of concern were below the site-established risk-based cleanup goals. Five-foot screens were installed in the two wells where contaminant levels exceeded the risk-based cleanup goals.

A review of historical soil sampling data also indicated that contamination in the upper clay unit is limited. Based on the available soil data, including the data collected during well installation, it was determined that the overall efficacy of the soil treatment systems was not compromised and there was no need to install additional air injection wells. The US EPA was consulted and agreed with the field change.

IV. ANTICIPATED ACTIVITIES DURING NEXT REPORTING PERIOD

During the next reporting period, the following tasks will be performed:

- Collect potentiometric surface data on a monthly basis.
- Sample the treatment system influent and effluent water on a monthly basis.
- Perform scheduled maintenance of the treatment system.
- Collect the quarterly suite of samples from the monitoring network.
- Begin operation of the air sparging system.
- Continued operation, maintenance, and monitoring of the SVE, AS, and AI systems.